

FIG. 1

-VOLUME SPACE 28-VOL./FILE **OTHER** LEAD-DVD VIDEO LEAD-IN **STRUCTURE** REC. OUT AREA 27 AREA 71 70 AREA 26 AREA 73 72 74A VTS#1 VTS#2 VTS#n (n**≦**99) **VMG** VIDEO MANAGER VIDEO TITLE SETS (FILES) VMGM_VOBS VMG I_BUP VMG I 2 TO 3 FILES 94 74B **VTSI** VTSTT_V0BS VTSI_BUP VTSM_VOBS 3 TO 12 FILES VIDEO OBJECT SET (ONE OR MORE PGC) C_ID C_ID C_ID C_ID C_ID C_ID C_ID N#1 N#2 N#3 N#1 N#2 N#1 N#i **CELLS** VOB VOB_ -VOB_IDN#1 1DN#2 IDN# i PGC#1 PGC#2 PGC#K PROGRAM CHAINS

FIG. 2

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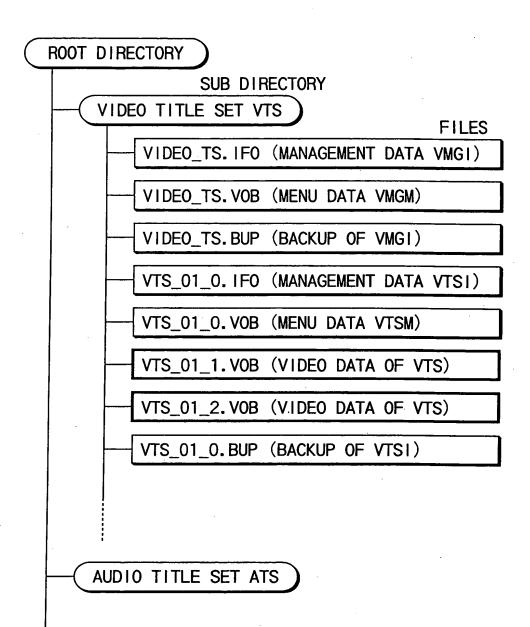
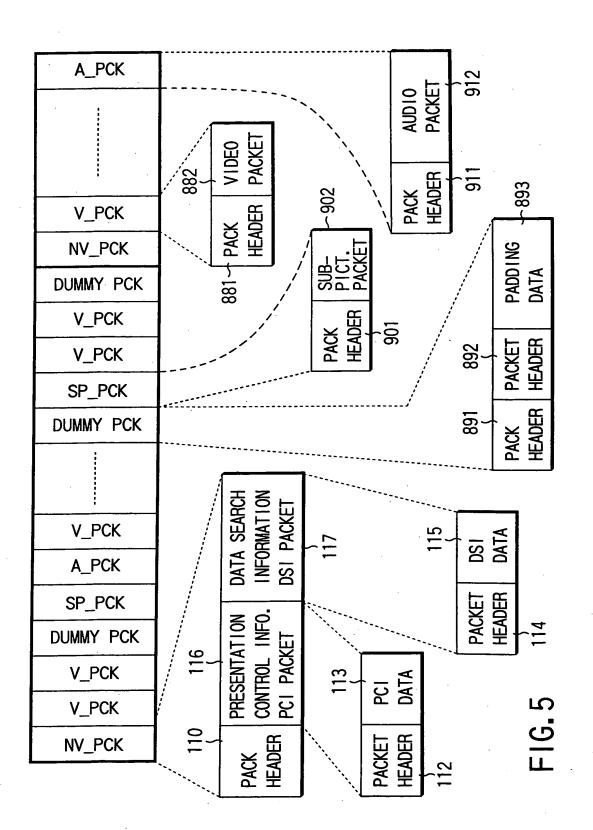


FIG. 3

			VIDEO OBJECT VOB_IDN#j		CELL (C_IDN#i)		VIDEO OBJECT UNIT VOBU		A_PCK	ARE TWO TYPES OF VOBU; ONE WITH NV_PCK, & THE OTHER WITHOUT NV_PCK)
			> >		CELL		> 5		V_PCK	THER WIT
	_							8~	NV_PCK	児
	(0BS)								DUMMY PCK	∞ ~
	^ _								V_PCK	Ř,
	(VTS						5		V_PCK	≥
	OBS						OBUE OBU		SP_PCK	₩ E
	ET V						VIDEO OBJECT UNIT VOBU		DUMMY PCK	N N
	VIDEO OBJECT SET VOBS (VTSTT_VOBS)		L5		CELL (C_IDN#2)					F VOBU; (
,	DE0		08.5E				OBJE OBU		V_PCK	ES 0
	>		VIDEO OBJECT VOB_IDN#2		0		VIDEO OBJECT UNIT VOBU	<u>6</u>	A_PCK	TYP
			0/ 1/		(N N	8-	SP_PCK	OMLT.
			CT		(C_IDN#1)		CT	85-	DUMMY PCK	ARE
			OBJE \#1		l_)		OBJE OBU		V_PCK	TERE
2 4		83	VIDEO OBJECT	84~	CELL	85	VIDEÓ OBJECT UNIT VOBU	88-	V_PCK	•
			NO.		Ö		> N	98	NV_PCK	(NOTE:

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CONTENTS OF PRESENTATION CONTROL INFORMATION PCI

SYMBOL	CONTENTS			
PCI_GI	PCI GENERAL INFORMATION			
NSML_AGL I	ANGLE INFO. FOR NONSEAMLESS			
HLI	HIGHLIGHT INFORMATION			
RECI	RECORDING INFORMATION			

FIG.6

CONTENTS OF PRESENTATION CONTROL INFORMATION GENERAL INFORMATION PCI_GI

SYMBOL	CONTENTS
NV_PCK_LBN	LOGICAL BLOCK NUMBER OF NAVIGATION PACK
VOBU_CAT	CATEGORY OF VOBU
RESERVED	RESERVED
VOBU_UOP_CTL	USER OPERATION CONTROL OF VOBU
VOBU_S_PTM	START PTM OF VOBU
VOBU_E_PTM	END PTM OF VOBU
VOBU_SE_E_PTM	END PTM OF SEQUENCE END IN VOBU
C_ELTM	CELL ELAPSE TIME
RESERVED	RESERVED

FIG. 7

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VIDEO TITLE SET VIDEO TITLE SET INFO. VTS 72 (FILE 74B) MANAGEMENT TABLE VTSI MAT VIDEO TITLE SET - 94 VIDEO TITLE SET PART INFO. VTSI OF TITLE SEARCH POINTER VIDEO OBJECT SET TABLE VTS PTT SRPT FOR VIDEO TITLE VIDEO TITLE SET PROGRAM SET MENU CHAIN INFORMATION TABLE VTSM_VOBS VTS_PGCIT VIDEO OBJECT SET VIDEO TITLE SET MENU FOR VIDEO TITLE PGCI UNIT TABLE SET TITLE VTSM_PGCI_UT VTSTT_V0BS VIDEO TITLE SET BACKUP OF VIDEO TIME MAP TABLE TITLE SET INFO. VTS TMAPT VTSI BUP VIDEO TITLE SET MENU CELL ADDRESS TABLE VTSM C ADT VIDEO TITLE SET MENU VIDEO OBJECT UNIT ADDRESS MAP VTSM_VOBU_ADMAP VIDEO TITLE SET CELL ADDRESS TABLE VTS_C_ADT VIDEO TITLE SET VIDEO OBJECT UNIT ADDRESS MAP VTS_VOBU_ADMAP

FIG.8

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VIDEO TITLE SET INFO. VTSI 94

VIDEO TITLE SET INFO. VIST	94
VIDEO TITLE SET INFO.	
MANAGEMENT TABLE	ı
VTS1_MAT	
VIDEO TITLE SET PART_	ŀ
OF_TITLE SEARCH POINTER	
TABLE VTS_PTT_SRPT	
VIDEO TITLE SET PROGRAM	一
CHAIN INFORMATION TABLE	
VTS_PGCIT	
VIDEO TITLE SET MENU	
PGCI UNIT TABLE	ļ
VTSM_PGCIT_UT	
VIDEO TITLE SET	ı
TIME MAP TABLE	Ì
VTS_TMAPT	
VIDEO TITLE SET MENU	i
CELL ADDRESS TABLE	
VTSM_C_ADT	
VIDEO TITLE SET MENU	
VIDEO OBJECT UNIT	I
ADDRESS MAP	1
VTSM_VOBU_ADMAP VIDEO TITLE SET CELL	
ADDRESS TABLE	1
VTS C ADT	
VIS_C_ADI VIDEO TITLE SET VIDEO	
OBJECT UNIT ADDRESS	
MAP VTS VOBU ADMAP	
INIVI A 1.2 A ODO WOINIVI	

VIDEO TITLE SET PROGRAM CHAIN INFO. TABLE INFORMATION VTS_GCITI VIDEO TITLE SET PROGRAM CHAIN INFO. **SEARCH POINTER #1** VTS_PGCI_SRP#1 VIDEO TITLE SET PROGRAM CHAIN INFO. SEARCH POINTER #n VTS_PGCI_SRP#n VIDEO TITLE SET PROGRAM CHAIN INFO. VTS_PGC1 VIDEO TITLE SET PROGRAM CHAIN INFO. VTS_PGC1

STRUCTURE OF PROGRAM CHAIN INFO. PGCI

	<u> </u>
PROGRAM CHAIN GENERAL INFO.	
PGC_G1	
PROGRAM CHAIN COMMAND TABLE	
PGC_CMDT	
PROGRAM CHAIN PROGRAM MAP	
PGC_PGMAP	
CELL PLAYBACK INFO. TABLE	
C_PBIT	
CELL POSITION INFO. TABLE	
C_POSIT	

FIG. 10

CONTENTS OF CELL PLAYBACK INFO. TABLE C_PBIT

CELL PLAYBACK INFO. (C_PBI#1)	#1
CELL PLAYBACK INFO. (C_PBI#2)	#2
	·
CELL PLAYBACK INFO. (C_PBI#n)	#n

FIG. 11

CONTENTS OF CELL PLAYBACK INFORMATION C_PBI

SYMBOL	CONTENTS
C_CAT	CELL CATEGORY
C_PBTM	CELL PLAYBACK TIME
C_FVOBU_SA	START ADR. OF 1ST VOBU IN CELL
C_FILVU_EA	END ADR. OF 1ST ILVU IN CELL
C_LVOBU_SA	START ADR. OF LAST VOBU IN CELL
C_LVOBU_EA	END ADR. OF LAST VOBU IN CELL
CELL TYPE	ERASION LEVEL FLAG 00h=PLAYBACK IS PERMITTED & AUTOMATIC ERASION IS PROHIBITED 01h=PLAYBACK IS PERMITTED & AUTOMATIC ERASION IS PROHIBITED

FIG. 12

1	•			CELL CATEGO	 .	
-	b31 b30	b29 b28	b27	<u>b26</u>	b25	b24
	CELL BLOCK MODE	CELL BLOCK TYPE	SEAMLESS PLAYBACK FLAG	INTER- LEAVED ALLOCATION FLAG	DISCONTI-	SEAMLESS ANGLE CHANGE FLAG
	b23	b2	22 t	b21 b20	0	b16
{	RESERVE	CELL BACK		ESS TRICTION FL	.AG CE	ELL TYPE
1	b15					b8
			CELL	STILL TIME		
	b7					b0
			CELL CO	MMAND NUMBI	ER	

FIG. 13

CONTENTS OF PROGRAM CHAIN GENERAL INFO. PGC_GI

SYMBOL	CONTENTS
PGC_CNT	PGC CONTENTS
PGC_PB_TM	PGC PLAYBACK TIME
PGC_UOP_CTL	PGC USER OPERATION CONTROL
PGC_AST_CTLT	PGC AUDIO STREAM CONTROL TABLE
PGC_SPST_CTLT	PGC SUB-PICT. STREAM CONTROL TABLE
PGC_NV_CTL	PGC NAVIGATION CONTROL
PGC_SP_PLT	PGC SUB-PICTURE PALETTE
PGC_CMDT_SA	START ADR. OF PGC COMMAND TABLE
PGC_PGMAP_SA	START ADR. OF PROGRAM MAP
C_PBIT_SA	START ADR. OF CELL PLAYBACK TABLE
C_POSIT_SA	START ADR. OF CELL POS. INFO. TABLE

FIG. 14

CONTENTS OF PGC GENERAL INFO. PGC_GI FOR TRASH PGC

SYMBOL	CONTENTS
PGC_CNT	PGC CONTENTS
PGC_PB_TM	PGC PLAYBACK TIME
PGC_UOP_CTL	PGC USER OPERATION CONTROL
PGC_AST_CTLT	PGC AUDIO STREAM CONTROL TABLE
PGC_SPST_CTLT	PGC SUB-PICT. STREAM CONTROL TABLE
PGC_NV_CTL	PGC NAVIGATION CONTROL
PGC_SP_PLT	PGC SUB-PICTURE PALETTE
PGC_CMDT_SA	START ADR. OF PGC COMMAND TABLE
PGC_PGMAP_SA	START ADR. OF PROGRAM MAP
C_PBIT_SA	START ADR. OF CELL PLAYBACK TABLE
C_POSIT_SA	START ADR. OF CELL POS. INFO. TABLE
TRASH_PGC_FLG	TRASH PGC FLAG 01h=TRASH PGC 00h=CONVENTIONAL PGC

FIG. 15

CONTENTS OF C_PBI FOR TRASH PGC

SYMBOL	CONTENTS
C_CAT	PGC CATEGORY
C_PBTM	PGC PLAYBACK TIME
C_FV0BU_SA	START ADR. OF 1ST VOBU IN CELL
C_FILVU_EA	END ADR. OF 1ST ILVU IN CELL
C_LV0BU_SA	START ADR. OF LAST VOBU IN CELL
C_LVOBU_EA	END ADR. OF LAST VOBU IN CELL
PGC_N	ORIGINAL PGC NUMBER OF CURRENT CELL
C_ID_N	CORRESPONDING CELL NUMBER OF ORIGINAL PGC

FIG. 16

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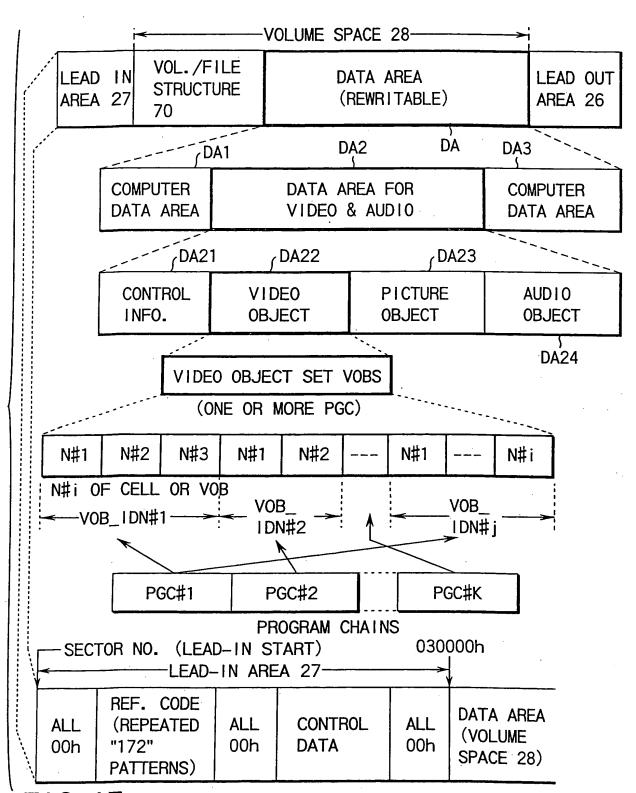


FIG. 17

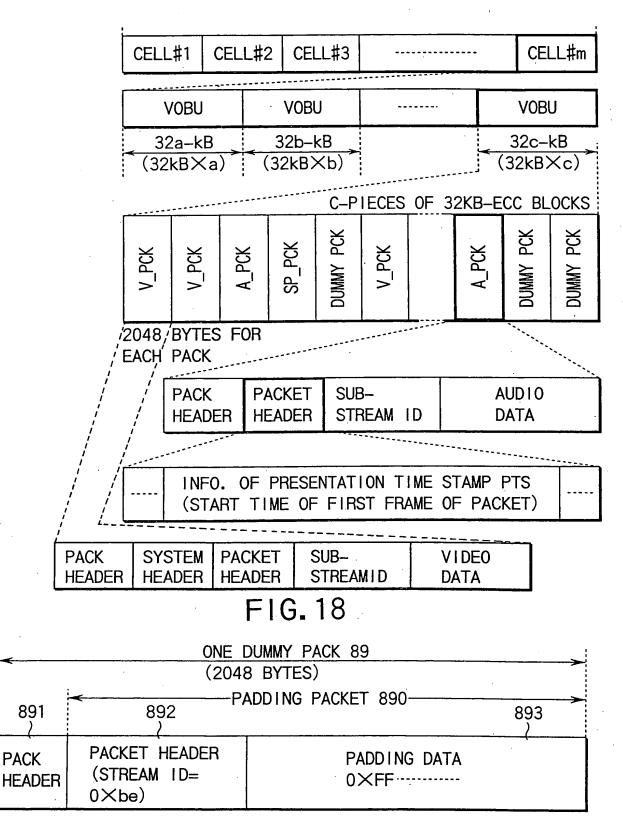


FIG. 19

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ROOT DIRECTORY

SUB-DIRECTORY DVD_RTR DIRECTORY

FILES

RTR. IFO (NAVIGATION DATA RTR_VMG)

RTR_MOV.VRO
(STREAM DATA OF MOVIE OBJECT)

RTR_STO.VRO
(STREAM DATA OF STILL PICTURE OBJECT)

RTR_STA.VRO
(STREAM DATA OF ADDITIONAL AUDIO PART FOR STILL PICTURE)

RTR=REAL TIME RECORDING

OTHER DIRECTORIES

VIDEO_TS (VIDEO TITLE SET)

AUDIO_TS (AUDIO TITLE SET)

SUB-DIRECTORIES FOR STORING COMPUTER DATA

OTHER FILES

FIG. 20

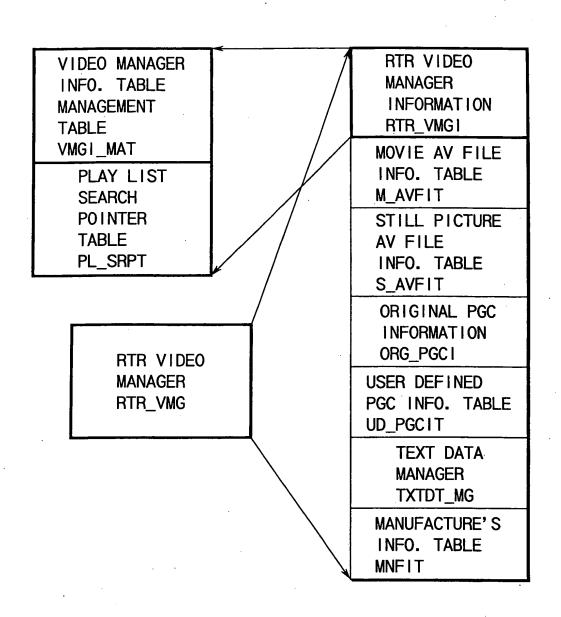
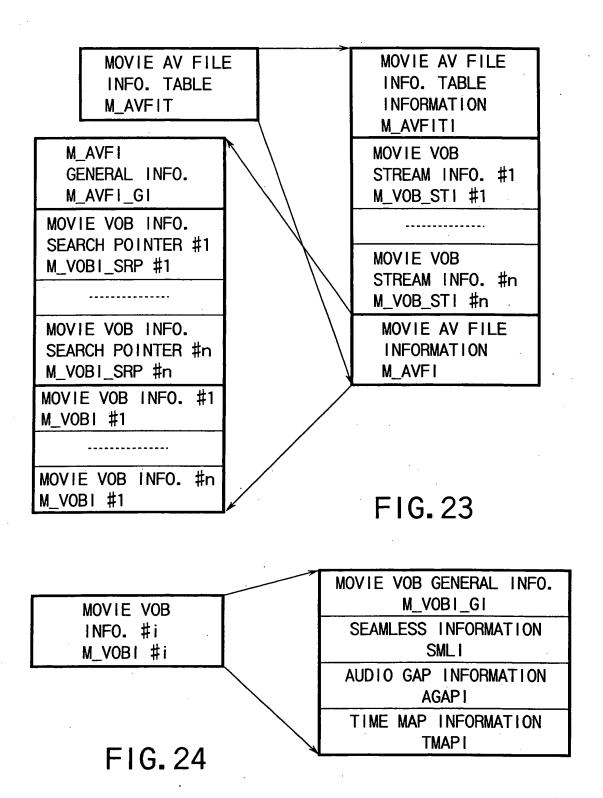


FIG. 21

CONTENTS OF VMGI_MAT

FIELD NAME	CONTENTS		
VMG_ID	VMG IDENTIFIER		
RTR_VNG_EA	END ADDRESS OF RTR_VMG		
RESERVED	RESERVED		
VMGI_EA	END ADDRESS OF VMGI		
VERN	VERSION NUMBER OF DVD SPEC. FOR VIDEO RECORDING		
RESERVED	RESERVED		
TM_ZONE	TIME ZONE		
STILL_TM	STILL TIME FOR STILL PICTURES		
CHRS	CHARACTER SET CODE FOR PRIMARY TEXT		
RSM_MRKI	RESUME MARKER INFORMATION		
REP_PICTI	DISC REPRESENTATIVE PICTURE INFORMATION		
RESERVED	RESERVED		
M_AVFIT_SA	START ADDRESS OF M_AVFIT		
S_AVFIT_SA	START ADDRESS OF S_AVFIT		
RESERVED	RESERVED		
ORG_PGC1_SA	START ADDRESS OF ORG_PGC1		
UD_PGCIT_SA	START ADDRESS OF UD_PGCIT		
TXTDT_MG_SA	START ADDRESS OF TXTDT_MG		
MNFIT_SA	START ADDRESS OF MNFIT		
RESERVED	RESERVED		

FIG. 22



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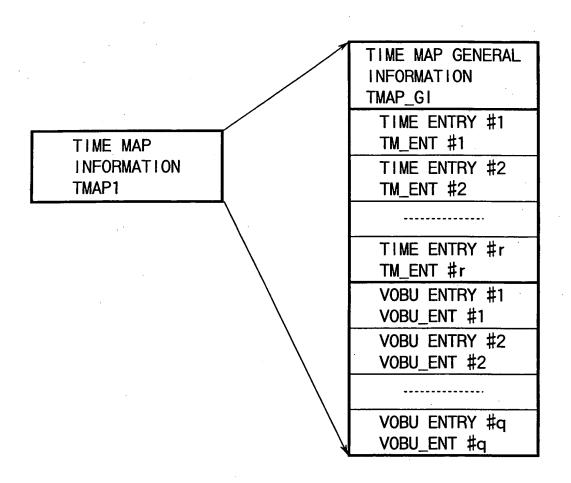


FIG. 25

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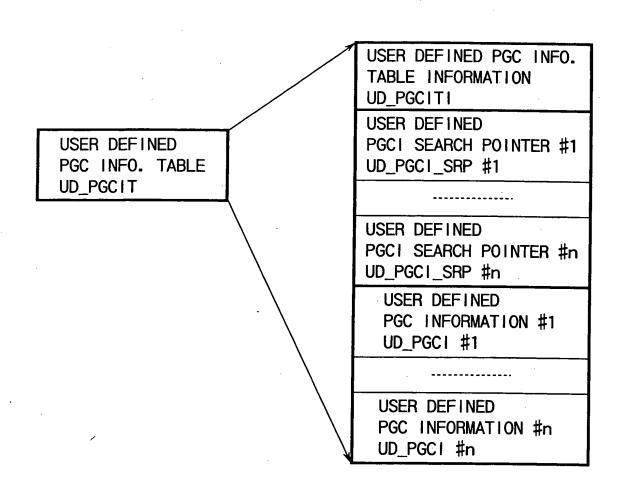


FIG. 26

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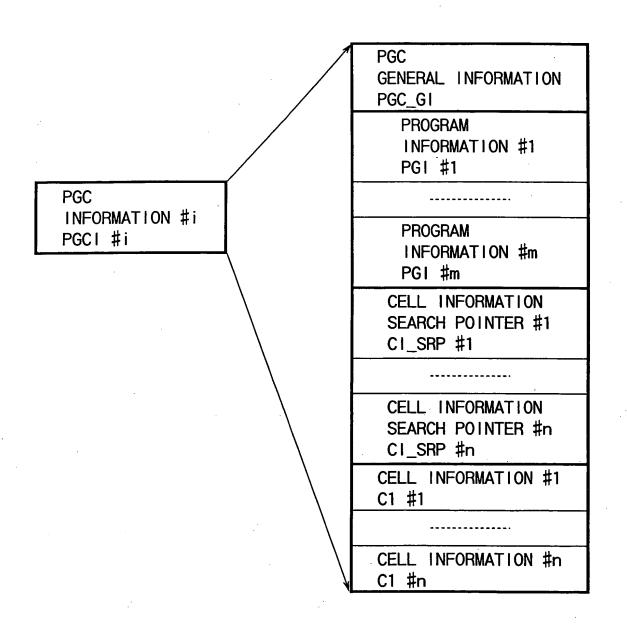


FIG. 27

CONTENTS OF PGC_GI

FIELD NAME	CONTENTS
RESERVED	RESERVED
PG_Ns	NUMBER OF PROGRAMS
CI_SRP_Ns	NUMBER OF CI SEARCH POINTERS
TRASH_PGC_FLG	TRASH PGC FLAG 01h=TRASH PGC 00h=CONVENTIONAL PGC

FIG. 28

CONTENTS OF PGI

FIELD NAME	CONTENTS
RESERVED	RESERVED
PG_TY	PROGRAM TYPE
C_Ns	NUMBER OF CELLS IN PROGRAM
PRM_TXT1	PRIMARY TEXT INFORMATION
IT_TXT_SRPN	ITEM TEXT SRP NUMBER
THM_PTRI	THUMBNAIL POINTER INFORMATION

FIG. 29

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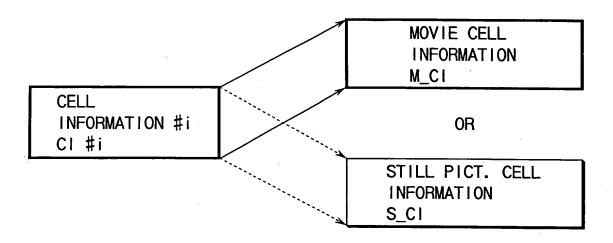


FIG. 30

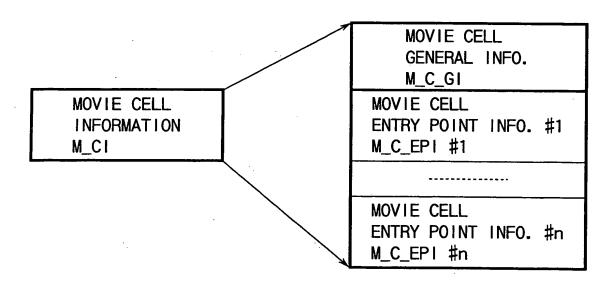


FIG. 31

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CONTENTS OF M_C_GI

FIELD NAME	CONTENTS
RESERVED	RESERVED
C_TY	CELL TYPE
M_VOBI_SRPN	MOVIE VOBI SRP NUMBER
C_EPI_Ns	NUMBER OF CELL ENTRY POINT INFO.
C_V_S_PTM	PRESENTATION START TIME OF CELL
C_V_E_PTM	PRESENTATION END TIME OF CELL

FIG. 32

CONTENTS OF M_C_EPI

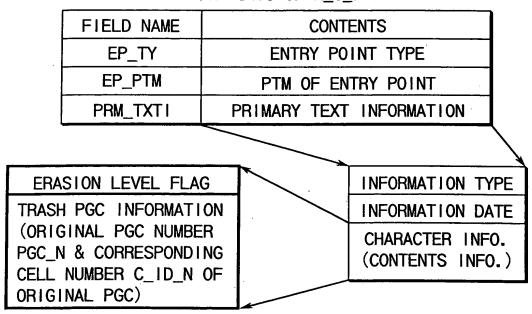
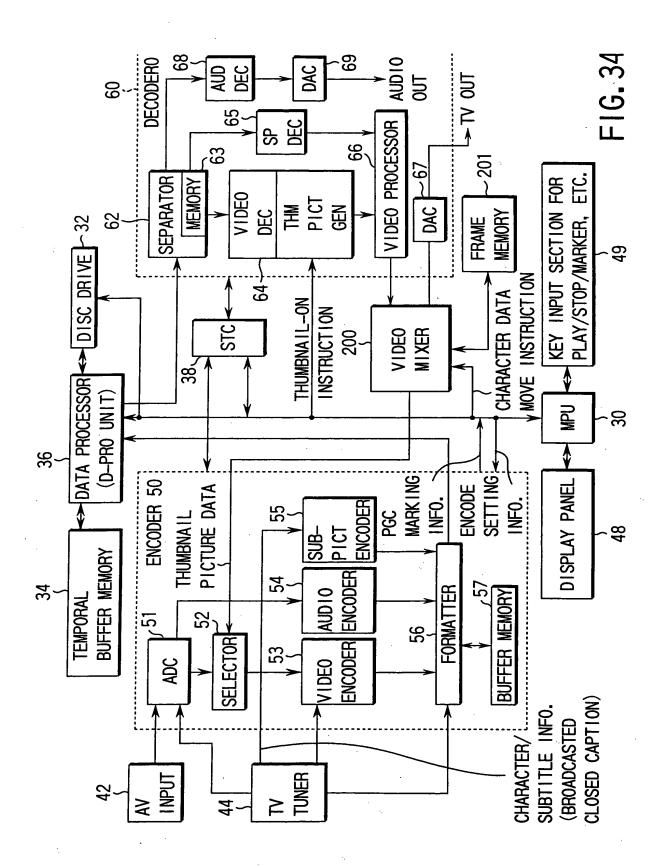
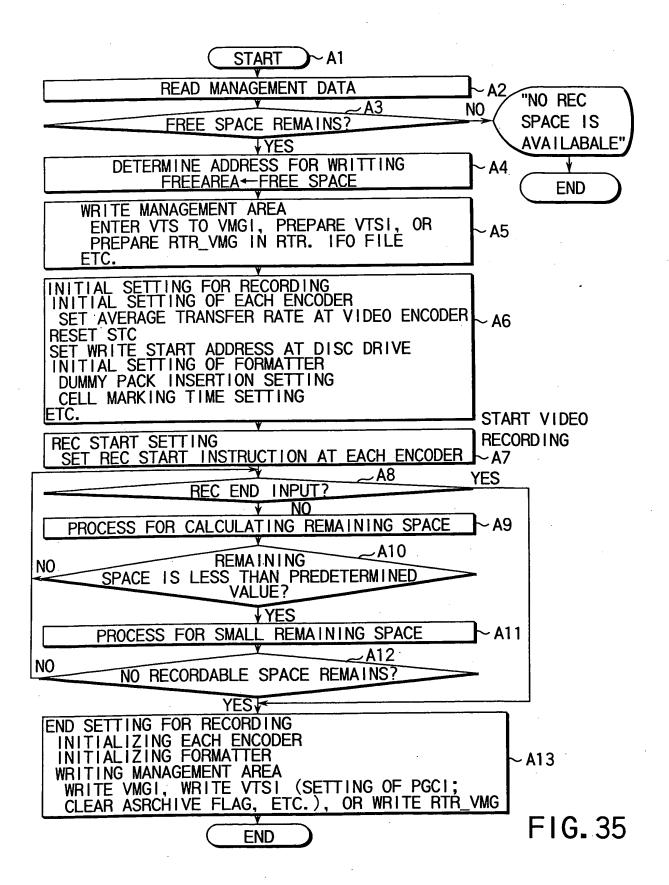


FIG. 33

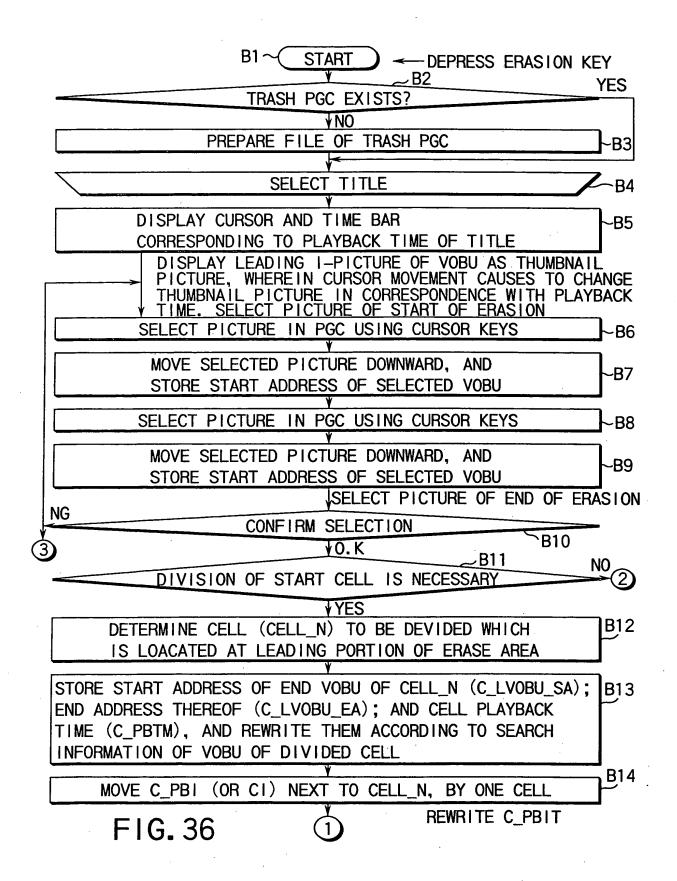




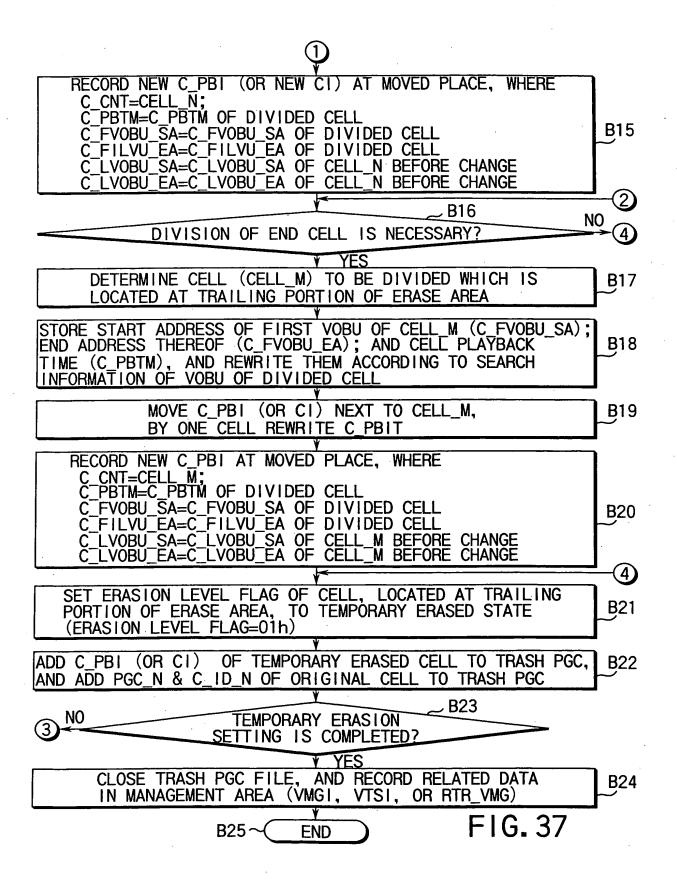
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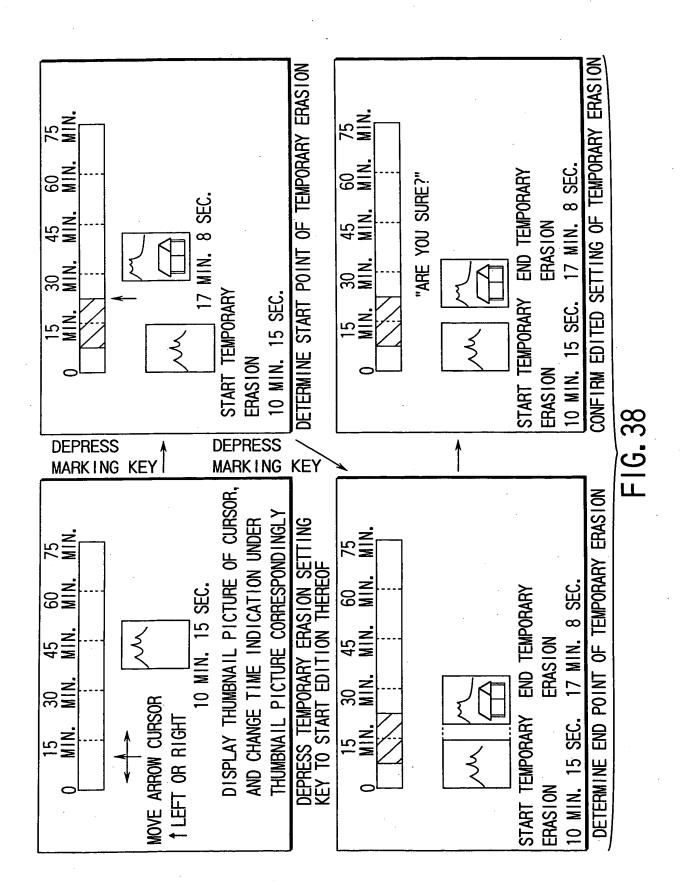


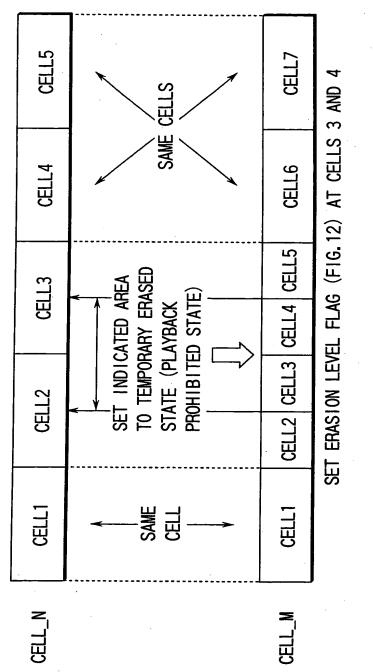
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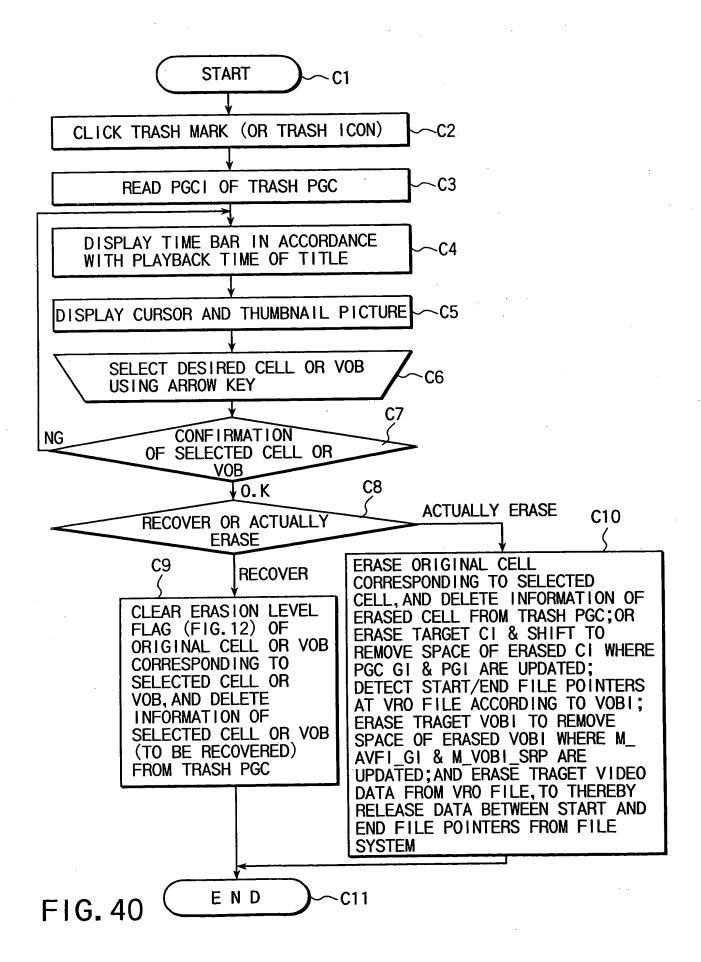
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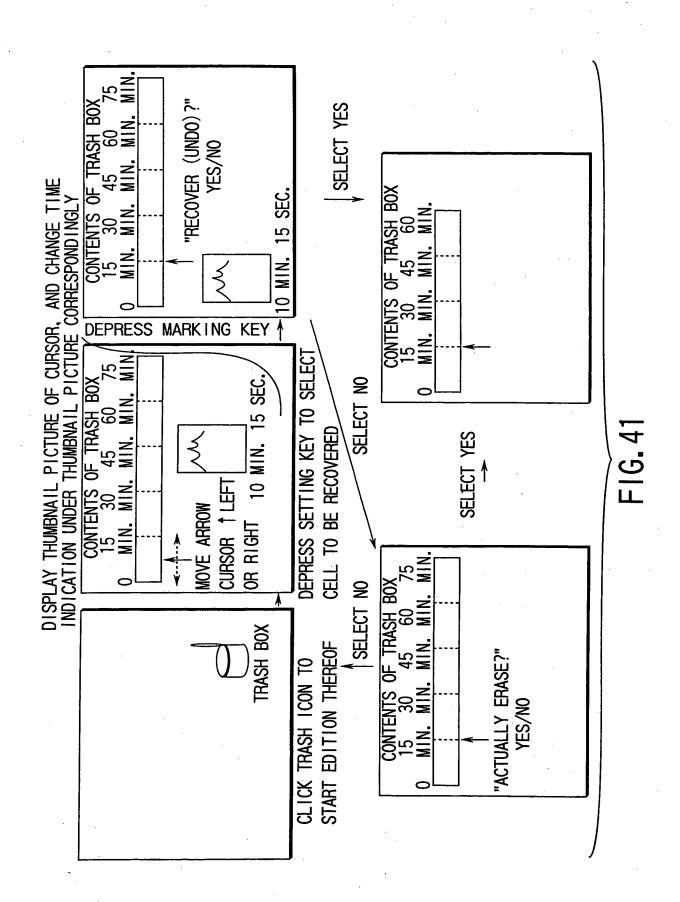


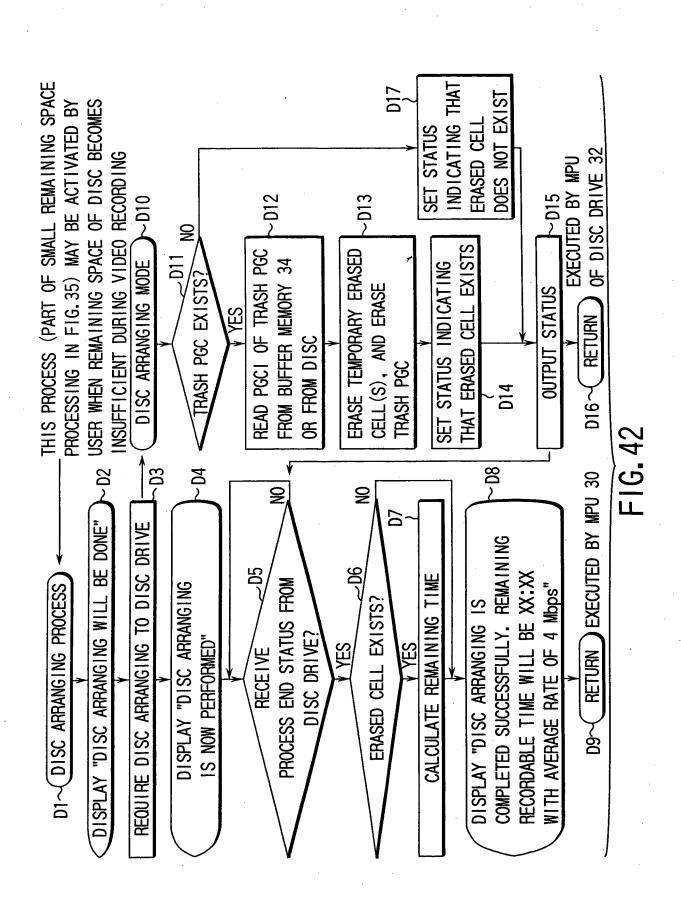


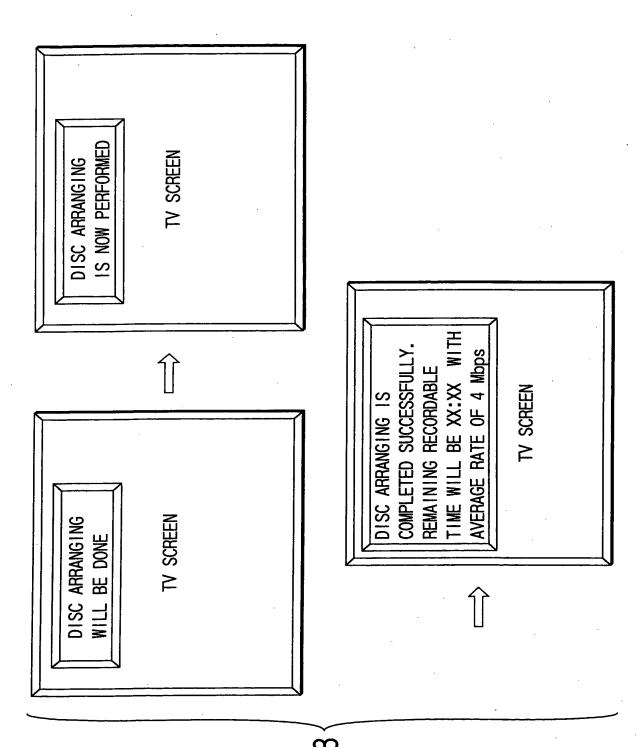


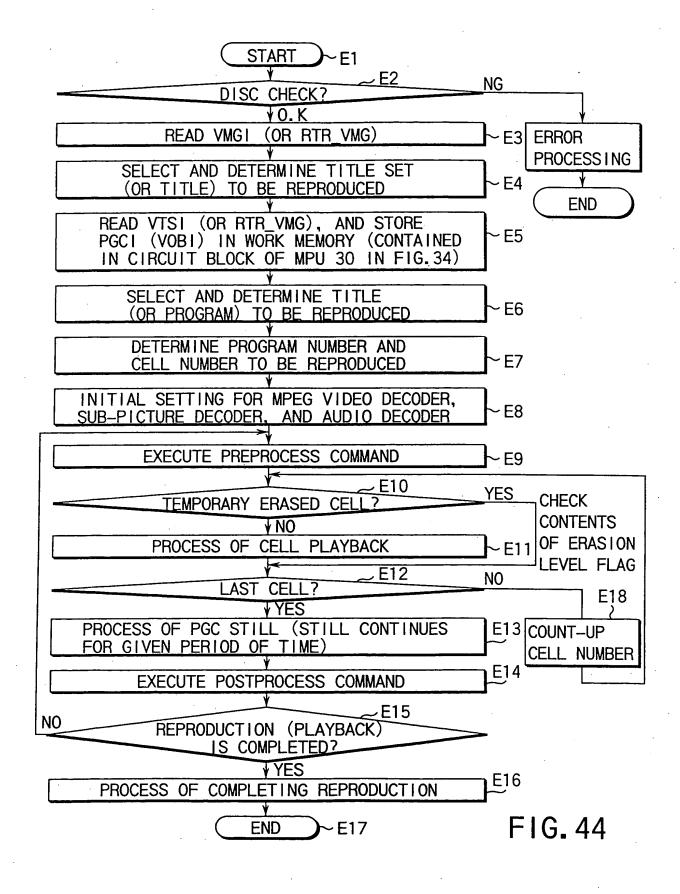


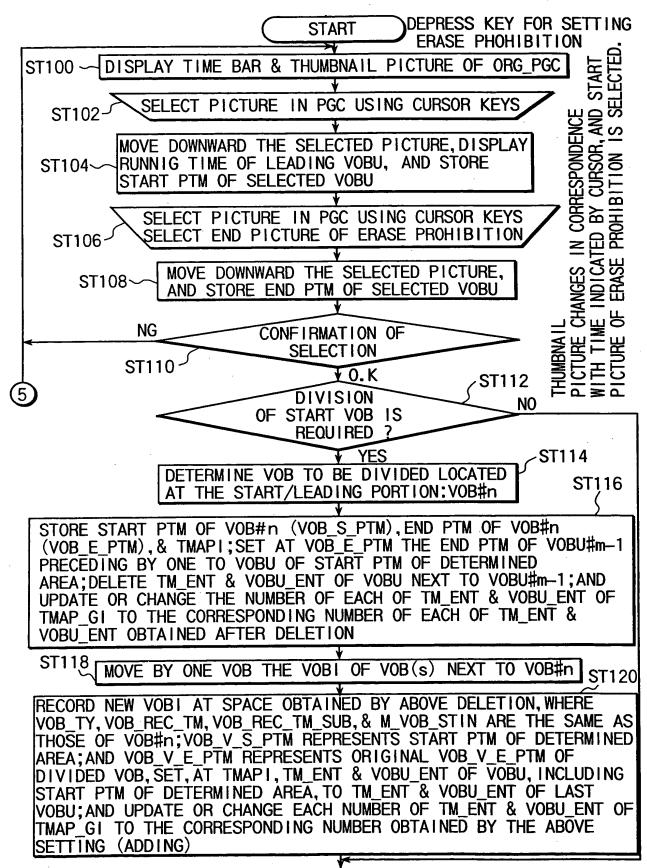




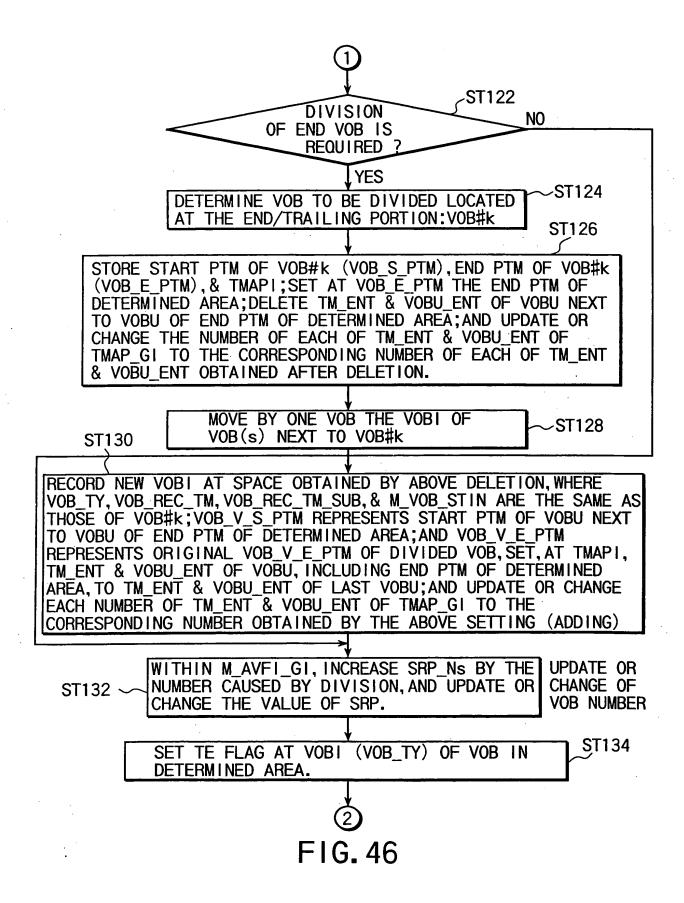




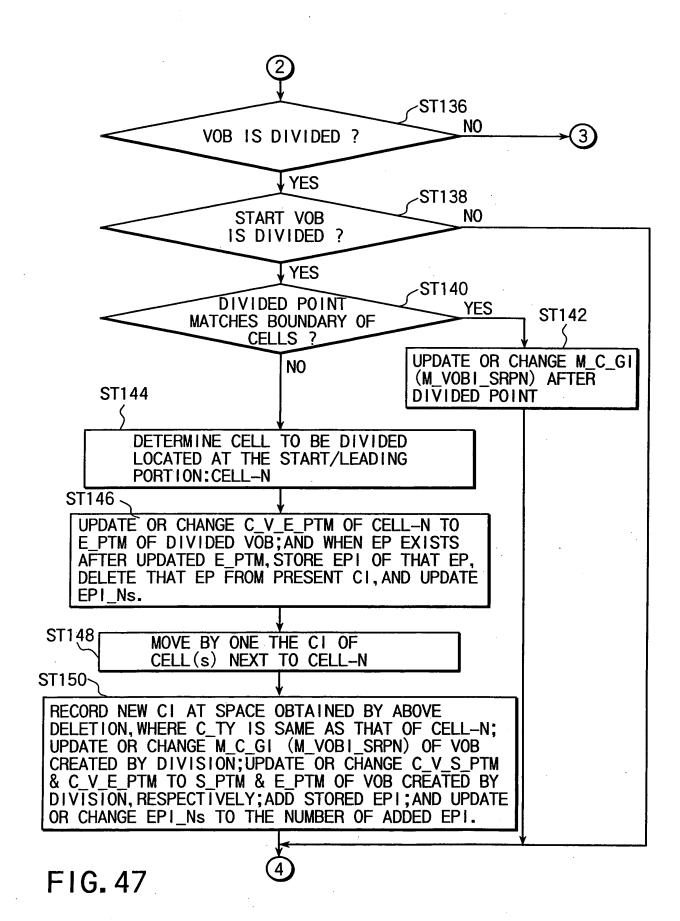


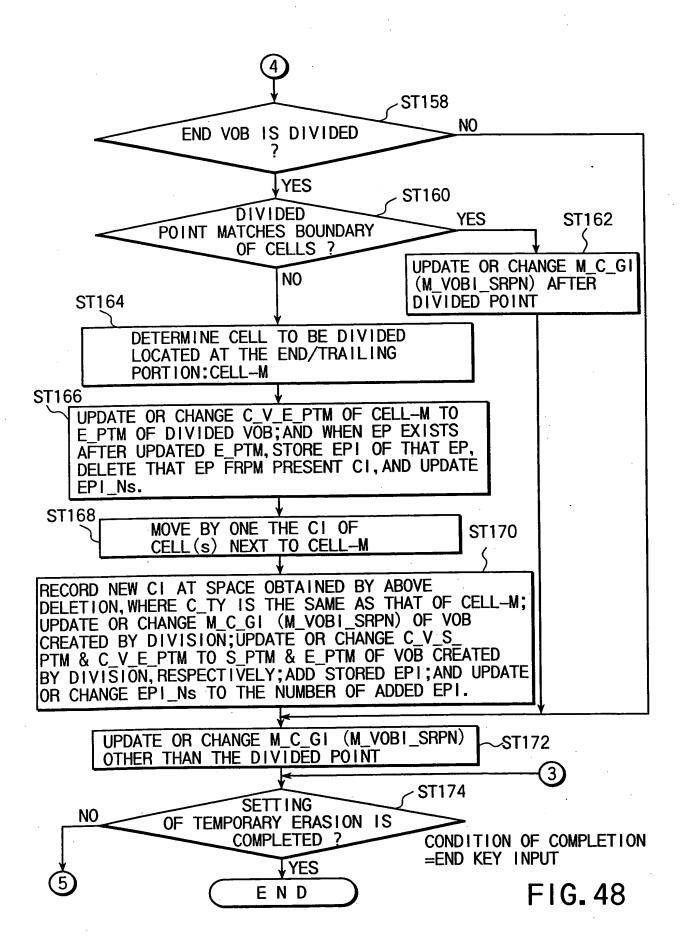












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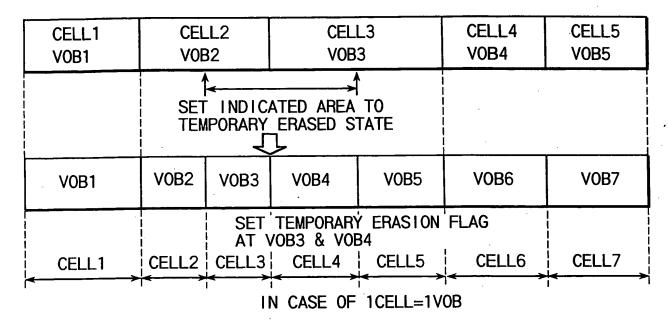


FIG. 49

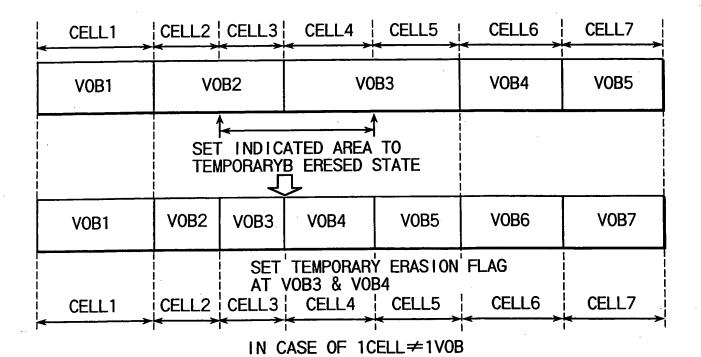


FIG. 50